

CLAIMS

What is claimed is:

1. A land pre-pits signal level automatic detecting device, which employing a digital processor to recognize the practical position of the land pre-pits (LPP) signal, employing
5 a automatic slice level, which is composed by level automatic detection of the RC circuit and a fixed slice level, as the basis for detecting the land pre-pits, the device comprising:
a bottom signal generator, which is coupled to an optical pickup circuit, for receiving a land pre-pits (LPP) signal and a land pre-pits window to generate a land pre-pits bottom hold signal;
10 a sample signal generator, which is coupled to the bottom signal generator, for receiving the LPP bottom signal and a sample and hold signal to generate a hold level signal;
an analog computer, which is coupled to the sample signal generator, for receiving the hold level signal and a fixed slice level to generator a sliced level signal
15 after analog addition;
a comparator, which is coupled to the analog computer and the optical pickup circuit, for receiving the LPP signal and the sliced level signal thereby generating a LPP sliced signal; and
a digital processor, which is coupled to the comparator, for receiving the LPP
20 sliced signal and a wobble clock to generate the LPP window and the sample and hold signal.
2. The device of claim 1, wherein the digital processor further comprising a synchronous signal corrector, a LPP window generator, and a LPP decoder.
3. The device of claim 1, further comprising a phase lock loop for generating the wobble
25 clock, and for coupling the LPP window generator and the synchronous signal corrector.
4. The device of claim 1, wherein the digital processor couples the comparator, the phase lock loop, the bottom signal generator, and the sample signal generator.

5. The device of claim 1, wherein the LPP window is open for three pulses and close for five pulses.
6. The device of claim 2, wherein the synchronous signal corrector and the LPP window generator generate a protected LPP signal, which is delivered to the LPP decoder.
7. The device of claim 2, wherein the LPP window generator generates the LPP window signal, which is delivered to the LPP decoder.